yellow- and purple-flowered complex. Chromosome counts showed that 68 of the 75 plants were diploid. The 23 most vigorous diploid plants were selected. Flower color ranged from light yellow to orange and pod shape was falcate. Growth habit upright and leaflets small. Seed weight 1.23 g/1000 seeds.

PI 578250. Medicago sativa ssp. falcata (L.) Arcang.
Breeding. C-27; W6 15091. GP-275. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were selected for improved plant vigor and yellow flowers for 3 cycles. Traces to the 27 plants with greatest tendency to spread. About 50 plants showed evidence to spread in an 1800 spaced-plant population of the yellow- and purple-flowered complex. The best 27 phenotypes were selected. Flower color ranged from light to dark yellow with some plants showing a purplish-tinge in the bud stage. Most pods falcate in shape but a few had one coil. Seed weight 1.34 g/1000 seeds. Pods with greater tendency to coil than C-25.

The following were developed by C. E. Townsend, USDA, ARS, Crops Research Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States. Received 04/04/1994.

PI 578251. Medicago sativa ssp. falcata (L.) Arcang.
Breeding. C-28; W6 15092. GP-276. Pedigree - All available plant introductions with adequate seed supply from the yellow- & purple-flowered complex were evaluated. Ten years after establishment, falcate-shaped seed pods were collected from plants throughout the nursery and composited. Seventy-three accessions of the yellow- and purple-flowered complex were evaluated for persistance in a 300mm precipitation zone in the central Great Plains. There were many purple-flowered plants in these accessions. Twelve years after establishment percent stand ranged from 5 to 88 with a mean of 49. Because of the management practices used and the absence of new seedling establishment, essentially all of the persisting plants were believed to be survivors of the original seeding.

PI 578252. Medicago sativa ssp. falcata (L.) Arcang.
Breeding. C-29; W6 15093. GP-277. Pedigree - All available plant introductions with adequate seed supply from the yellow- & purple-flowered complex were evaluated. Ten yrs. after establishment, seed pos with 1 or more coils were coll. from plants throughout the nursery and composited. Seventy-three accessions of the yellow- and purple-flowered complex were evaluated for persistance in a 300mm precipitation zone in the central Great Plains. There were many purple-flowered plants in these accessions. Twelve years after establishment percent stand ranged from 5 to 88 with a mean of 49. Because of the management practices used and the absence of new seedling establishment, essentially all of the persisting plants were believed to be survivors of the original seeding.

PI 578253. Medicago sativa ssp. falcata (L.) Arcang.
Breeding. C-30; W6 15094. GP-278. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were sel. for improved plant vigor & yellow flowers for 3 cycles. 10 yrs. after estab., falcate-shaped seed pods harvested throughout the nursery & composited. Traces to 105 accessions of the yellow- and purple-flowered complex. The yellow-flowered plants were permitted to interpollinate after the purple-and variegated-flowered plants were rogued. A composite seed lot from the yellow- flowered plants was evaluated for persistance in the 300mm precipitation zone of the central Great Plains. Persistance was excellent following 10 years of evaluation. Most plants had yellow flowers but a few had variegated flowers. Seed weight 1.82 g/1000 seeds.